

Application No.: 10/631,868Docket No.: 2336-201

ABSTRACT

A backlight inverter for an LCD panel which is capable of detecting a fault in a transformer device ~~including two transformers driven in tandem~~ or an open-lamp condition and performing a control operation to stop its operation upon detecting the fault in the transformer device or the open-lamp condition. The inverter supplies a PWM signal through a switch in normal operation. The inverter also detects a voltage corresponding to current flowing through each lamp in a lamp device and determines from the detected voltage whether the open-lamp condition has occurred. The inverter further detects a voltage at a midpoint of secondary windings of the ~~transformer pair in~~ the transformer device and determines from the detected voltage whether the fault exists in the transformer device. In the event of the open-lamp condition or the fault in the transformer device, the inverter turns off the switch. ~~Therefore, an enhanced self-protection function can be carried out in the event of a malfunction, such as the fault in the transformer device or the open lamp condition, to more securely prevent the internal components and circuits of the inverter from being damaged due to such a malfunction.~~